B88 Safety Committee Minutes

Building 88, Conference Room 88-109, 28 March 2007, 3:30PM

<u>Present:</u> <u>Absent:</u>

Dennis Collins
Paul Fallon
Claude Lyneis
Peggy McMahan
Jim Morel
Larry Phair
Jim Rice
Linnea Wahl

Jeff Bramble Rod Clark (vacation) Ken Gregorich (ACS conf) Robert Shannon Paul Vetter (vacation) Frank Rosado

Guests:

Weyland Wong, Eng. Division

1. ELECTRIC SHOCK INCIDENT. Weyland Wong spoke to the Committee about the Engineering Division analysis of Doyle Byford's 120V electrical shock, received while working on the RF System Final Power Amplifier (FPA). Doyle was not injured, and did not miss any work as a result of the shock, which is considered a "first aid" event, and non-OSHA recordable. Weyland and Marshall Granados have conducted a review of the incident to determine root cause and contributing causes. The final report is due 45 days after the incident (2/22/2007 + 45 days), or within a week, or so.

The Committee discussed some of the possible contributing causes and some possible corrective measures under consideration. Barriers may be added internal to the FPA cabinet. One known corrective measure will be to add steps to the multiple-source 12-kV LOTO procedure, or to re-sequence certain steps, followed by actual meter probing to ensure the zero energy state. Also, the 12-kV LOTO procedure (a switching tag format) will be modularized to help keep overall awareness of the LOTO process.

2. MULTIPLE-SOURCE LOTO PROCEDURES. Weyland Wong and Dennis Collins have reviewed the new 12-KV LOTO Procedure modules. They are finished but require verification that they ensure a zero energy state. Many other procedures are completed. Many have been reviewed by Keith Gershon, the LBL Electrical Safety Engineer: Keith made numerous suggestions, all of which have been incorporated. A new multiple-source LOTO label will list only the procedure number. Procedures will be available in the EM Shop, and possibly be available on the web.

ACTION: At next building-wide safety meeting point out the new multiple-energy source tags and explain their purpose.

3. EMERGENCY RESPONSE PROCEDURES FOR GROUP LEADERS. Building 88 has a unique escape plan in the event of an earthquake, fire, etc. Our group leaders have the responsibility to have their group members meet them at the assembly area in the parking lot, and to determine who, if any, are missing or unaccounted for, then report results to the Emergency Team Leader.

ACTION: Check on current escape maps: still valid? Adequate? ACTION: Post exit route signs in the LIBERACE shack.

4. NON-NRTL EQUIPMENT. In foreseeable future LBL will start reviewing existing, operating, legacy electronics equipment, as a first phase of getting all electrical and electronics equipment up to certain NRTL-equivalent safety levels. This will entail verifying the schematics are available, review to ensure the internal wiring does not create unexpected hazards, measurement of ground resistance, possibly high-potting AC wiring and power transformers, then a visual inspection of internal barriers, strain reliefs, covers, and the labeling of fuses, switches, controls, and plugs. To ensure this goes smoothly, once the process is started, PI's and other custodians of LBL-built experimental equipment could have at hand the schematic diagrams or manuals for the equipment to be labeled. Any equipment at the warehouse, will need probably need the full review.

When buying equipment, everyone is advised to buy only UL-approved equipment, or equal (not CE rated), when you can: this will save time and money when bringing in new equipment. Equipment made at other labs, and overseas, will be thoroughly checked before it is commissioned for use, unless it has an NRTL label.

ACTION" Describe this process at the next building-wide safety meeting.

- 5. 12-KV ELECTRIC SHOCK AT CAP POLY-POMONA. Sent around a news article about a 12-kV electrical shock and arc-blast at Cal-Poly, Pomona, CA on February 22. The electrician was not electrocuted, but burned and moved to the Sherman Oaks Burn Center. So far, no more mews available of the cause of the incident or the electrician's recovery.
- 6. PROGRESS ON LCATS AND CATS FINDINGS. As of today, all LCATs listings for the Cyclotron have been closed out. There is only one new CAT listing, and that is being corrected by Facilities.
- 7. OBSERVATIONS ON INSPECTIONS OF RESEARCH SPACES. The interval of the PIs' space reviews has not been set, but at least twice a year seems reasonable. A new check list is being prepared for the next review cycle, with slightly different emphasis (less on very technical issues such as cable tray grounding).
- 8. REMINDER OF TEMPORARY VS PERMANENT WIRING. The distinction of a single extension cord, as temporary wiring, versus permanent wiring changes was discussed. Although not always done, the temporary use of an extension cord implies rolling the cord up at the end of the day. If this can't be done, and the load cannot be moved closer to the power source, a permanent wiring change to omit use of the cord is recommended.
- 9. UPCOMING MESH REVIEW. About May the SRC will start a MESH review of NS Division (includes the Cyclotron). The SRC can decide to change the interval for MESH reviews to three, four, or five year cycles, based on the merit of the Division.
- 10. B88 SAFETY COMMITTEE COMMISSION. Claude suggested we review the commission of the B88 Safety Committee, and the membership composition. Larry Phair suggested, following the meeting, we find someone to represent the ion sources group.

Minutes by:

Dennis G. Collins MS 88R0192, LBNL

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March 2007 BUILDING 88 Building 88 SAFETY COMMITTEE MEETING 28 March 2007 Time 3:30 pm

AGENDA

- 1. Building Emergencies (duties of group leaders).
- 2. Electrical shock at B88
- 3. Labels for multiple source LOTO procedures.
- 4. Info on non-NRTL certifications
- 5. Cal-Poly 12 KV incident
- 6. Progress on CATs findings.
- 7. Observations on research space inspections: Fallon
- 8. Reminder: temporary wiring vs permanent.

Committee:

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Marty White

David Kestell